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EXAMINER	
LUONG, ALAN H	
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2427	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/665,426	MORI ET AL.	
	Examiner	Art Unit	
	ALAN LUONG	2427	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 30, 2009, has been entered.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims **1, 3-8, 10-11 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. (US Pub 2002/0162111 hereinafter Shimizu); in view of Hannuksela et al. (US Pub 2004/0139462 hereinafter Hannuksela whereby the provisional application (60/396489) referenced for purposes of priority).

Regarding to claim 1: Fig. 2 of Shimizu illustrates a communication terminal [2] as **a receiving apparatus** comprising:

Data transceiver unit [21] has **reception means for receiving data on a stream**

broadcast *(i.e. moving image data)* **via a network** *(i.e. wireless communication network between a Base station [1] and the communication terminal*); reads on (**Shimizu**; **¶0027)**

memory [23] **which is capable of storing a predetermined amount** *(i.e. as the threshold value)* **of the received data on a stream broadcast**; reads on (**Shimizu**; Fig. 3, **¶0028-¶0030)**

control means [22] **for controlling the memory** [23] **to perform outputting from the memory *(i.e.*** *The decoding unit 24 decodes the moving image data that has been read out from the buffer 23 under the control of the control unit 22*) reads on (**Shimizu**; **¶0028)** *and Fig. 3 of Shimizu depicts a timing of the amount of data* **storing into the memory** [23] **the data on a stream broadcast simultaneously so as to conserve a predetermined amount** *(i.e. the threshold value)* **of buffering of the data**; reads on (**Shimizu**; **¶0029-¶0030)**

data processing means *(i.e. control unit [22] controls a decoder [24]*) **for processing the data on a stream broadcast stored in the memory** [23**] to generate video data***;*** reads on (**Shimizu**; **¶0028)**

Decoder [24] as **video output means for outputting the video data to a display apparatus** (i.e. *display unit [25]);* reads on (**Shimizu**; **¶0028)**

The control unit [22] also is ***detection means for detecting interruption point data indicating a position*** *(i.e. inserting position locating signals called Index-Points are provided for moving image content transmitted from the base station 1, and a commercial is inserted into the positions of the Index-points as shown in FIG. 7B,.)*

where reproduction of the stream broadcast should be interrupted out of the received data on stream broadcast"; (*if a reproduction stop position is determined from only the remainder of the amount of data in the buffer 23, a commercial suddenly appears at some midpoint in a scene as shown in Fig. 7A. Insertion of the commercial at some midpoint in the scene in this manner cause all the more increased discomfort to a viewer.)*; reads on (**Shimizu**; **¶0038-¶0039)**

However, Shimizu explicitly fails to teach "*wherein interruption point data is incorporated in the data on a stream broadcast relating to scene partitions of a program on the stream broadcast".*

In an analogous art directed toward a similar problem namely improving the results from *detection means for detecting interruption point data wherein interruption point data is incorporated in the data on a stream broadcast relating to scene partitions of a program on the stream broadcast"*. Fig. 8 of Hannuksela illustrates scene detection and concealing for picture lost or corrupted as the **interruption point data** (i.e. transmission errors) reads on **(Hannuksela**, **page. 2 lines 4-20) indicating a position** (i.e. scene transition type defined in **page. 7 lines 12-15**); ***wherein interruption point data is* incorporated in the data on a stream broadcast relating to scene partitions of a program on the stream broadcast** (*i.e. scene is associated with a scene identifier value which is used to determine scene change in decoding process*); reads on (**Hannuksela, page. 2 lines 23-26, page. 3 lines 1-8, page. 7 line17 to page 8 line 9 and page. 9 lines 3-22).**Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention was made to combine the detecting of

scene change as taught by Hannuksela with a receiving apparatus of Shimizu, in order to provide a perfect scene boundary detection algorithm for video restoration **(**Hannuksela, **page. 2 lines 18-20)**

Further, Shimizu teaches that (*Referring to FIG. 3, indicated by (a) Buffer shows the amount of moving image data stored in the buffer 23 (see FIG. 12) A horizontal axis indicated by a dot line is a threshold* **as a predetermined level;** *the control unit 22 performs control such that reproduction cannot be started when* **the data in the memory gets under a predetermined level** *and* **monitors** *until the amount of data accumulated in the buffer unit 23 exceeds this threshold value. Storing the amount of data that exceeds the threshold value in the buffer unit 23 to start reproduction in this way can prevent data reproduction being interrupted in* **abnormality of communication** *whenever a reduction in the bit rate in a short period of time or an interruption of data transmission has occurred);* (**Shimizu**; **¶0029-¶0030)** meets the limitation of claim **"wherein the control means** [22] **(a) monitors abnormality of communication by detecting whether the amount of buffering of the data in the memory gets under a predetermined level"**;

Further, referring to Fig. 16A-16C of Shimizu illustrates "*a state where the amount 15022 of the moving image content stored in the buffer 23*; *reference numeral 15023 denotes a threshold that indicates whether moving image reproduction is possible or not. FIG. 16C shows a state where the amount of the moving image content stored is smaller than the threshold, so that reproduction of the moving image content cannot be performed*". (**Shimizu**; **¶0056)** meets the limitation of claim (b) **gets from the detection**

means detected interruption point data, when the abnormality of the communication is detected; and (c) control unit [22] **controls the data processing means and the video output means** [24] **to**

(i) Shimizu also teaches that **"***Display of the amount 15022 of the moving image content stored in the buffer and display color of the amount 15021 of the moving image contents reproduced, for example: it may be so arranged that a green color is used for the state in FIG. 16A, a yellow color is used for the state in FIG. 16B, and a red color is used for the state in FIG. 16C , can notify the user of a possibility that reproduction of the moving image content may be interrupted before completion of reproduction. At this point user can* **continue the output of the video data from a position at which the abnormality is detected to a position instructed in the detected interruption point data** *(i.e. user can view commercial instead of movie for a while without discomfort)*, **so as to display** *[i.e. 14030 of Fig. 15B)* **on the display apparatus** [25] **a video image based on the video data**, (**Shimizu**; **Fig. 15 B-15C**, **¶0054, ¶0057-¶0059)** and

(ii) Shimizu also teaches that *when the amount of moving image data stored in the buffer 23 becomes small, the control unit 22 performs control so that upon stopping of reproduction of moving images*, **stops the output of the video data at the position instructed in the detected interruption point data** *until data is stored and accumulated in the buffer 23 to exceed the threshold value.* (**Shimizu**; **¶0031),** *or a commercial suddenly appears at some midpoint in a scene. Insertion of the commercial at some midpoint in the scene in this manner cause all the more increased discomfort to a viewer*. (**Shimizu**; **¶0038)**

Regarding to claims 3, 4: Shimizu and Hannuksela teach all limitations of the receiving apparatus according to claim 1, Fig. 2 of Shimizu shows **the control means** (control unit 22) further **controls the data processing means** (i.e. decoder 24) and **the video output means** (i.e. display unit 25) **to restart the output of the video data from the position instructed in the interruption point data in response to an amount of buffering of the data on a stream broadcast stored on the memory having reached a predetermined amount after stopping the output of the video data**; **wherein the amount of expandable data in the reception buffer memory and estimated time when the output of the video data can be restarted based upon the amount of data, which is stored on the buffer memory**" reads on (**Shimizu**; **¶0029-¶0031)** (*FIG. 3 is a timing diagram showing a relationship between the amount of data in the buffer 23 and a reproduction status of moving image data. During the interval that moving image reproduction is stopped, data is stored and accumulated in the buffer 23. Then, upon accumulation of the amount of data that exceeds the threshold value, moving image reproduction is resumed).*

Regarding to claim 5: Shimizu and Hannuksela teach all limitations of the receiving apparatus according to claim 3**, Fig. 8 of** Shimizu *illustrates inserting position locating signals called Index-Points are provided for moving image content transmitted from the base station 1, and a commercial is inserted into the positions of the Index-points wherein* the **detection means** further **detects restart point data indicating a restart point (i.e.** *Index-Points in Fig. 7B)* **after stopping the video output out of the data on a stream broadcast**; and **controls the data processing means and the**

video output means to restart the output of the video data from a position instructed in the detected restart point data (*When the buffer 23 has a sufficient capacity to resume reproduction, the commercial is not reproduced, and temporarily stored in the insertion data buffer 26, the positions at which a commercial is inserted are defined on the basis of the amount of storage in the buffer 23 and the Index-Points. With this arrangement, insertion of a commercial at some midpoint of a scene can be prevented. Viewer discomfort can be thereby relaxed.*); reads on (**Shimizu**; **¶0038-¶0042).**

Regarding to claim 6: Shimizu and Hannuksela teach all limitations of the receiving apparatus according to claim 1. Fig. 8 of Shimizu illustrates a commercial that has been downloaded before downloading of moving image content may be reproduced as shown in Fig. 4 or 5; then **the control means controls the video output means to output predetermined video data (i.e.** still image data or a commercial) **instead of video data (i.e.** the moving image content) **according to the data on a stream broadcast after stopping the output of the video data;** reads on (**Shimizu**; **¶0032, ¶0034-¶0036 and ¶0041-¶0042).** (*i.e. whenever moving image data reproduction has interrupted, information on most recent news, weather forecasts, and stocks, for example, can be reproduced).*

Regarding to claim 7: Shimizu and Hannuksela teach all limitations of the receiving apparatus according to claim 6, Shimizu also teaches **"***The still image data is stored in the insertion data buffer 26. Then, when the amount of moving image data stored in the buffer 23 becomes small, the control unit 22 performs control so that upon*

stopping of reproduction of moving images, the decoder unit 24 decodes the still image data. During the interval that moving image reproduction is stopped, data is stored and accumulated in the buffer 23. Then, upon accumulation of the amount of data that exceeds the threshold value, moving image reproduction is resumed). **(Shimizu, ¶0031)**

Meets the limitation of claim "**in the case in which an amount of buffering of the data on a stream broadcast stored on the memory** *(i.e. buffer [23])* **has reached a predetermined amount after stopping the output of the video data** *(i.e. exceeds the threshold value)*, **the control means** *[22]* **further controls the data processing means and the video output means (i.e.** *the decoder unit 24)* **to restart the output of the video data from a position instructed in the interruption point data after the predetermined video data ends** *(i.e. still image data or a commercial)*.

Regarding to claim 8: Shimizu and Hannuksela teach all limitations of the receiving apparatus according to claim 1. Fig. 10 of Shimizu *illustrates the control unit [22] "* ***wherein the detection means further detects location information (****i.e.* a CM-broadcast-notification data generating unit [27]) ***of a second distribution server (****i.e. memory 15 in Base station 1****), which is capable of distributing data*** *(i.e.* the CM-broadcast-notification data generating unit [27] *generates data for notifying the broadcast of the commercial)* ***on a stream broadcast at or after the interruption point (****as shown in Fig. 8****), out of the data on a stream broadcast*** *(i.e. as CM broadcast count as shown in Fig. 11)****, and the control means*** [22] ***controls the reception means [****2****] to make connection to the second distribution server*** [15] ***when abnormality of communication is detected";*** reads on (**Shimizu**; **¶0045-**

¶0047) (*When a commercial read out from the insertion data buffer 26 is decoded by the decoding unit 24 **(***corresponding to the moving image content is interrupted or **abnormality of communication is detected)**, and then the decoded information is transmitted to the control unit 22, the CM-broadcast-notification-data generating unit 27 generates data for notifying the broadcast of the commercial. This data is transmitted to the commercial broadcast counter 14 via the data transceiver unit 11 and the control unit 12 in base station [1]. Then, the CM broadcast counter 14 counts the number of times that the commercial has been broadcast. The control unit 12 calculates the bonus point to be given to a viewer or a distribution charge, on the basis of the result of counting and the data stored in the memory 15. The result of calculation is transmitted to the communication terminal 2 for each completion of reproduction of moving image content.).*

Regarding to claim 10: Shimizu and Hannuksela teach all limitations of the receiving apparatus according to claim 1; referring to Fig. 8, Shimizu discloses **wherein the interruption point data which designates a position where the stream broadcast should be interrupted after a CM ends and before a program following the CM starts, which are included in the data on a stream broadcast** (*i.e. the positions at which a commercial is inserted are defined on the basis of the amount of storage in the buffer 23 and the Index-Points as transmit stream (b) of Fig. 8. With this arrangement, insertion of a commercial at some midpoint of a scene can be prevented. Viewer discomfort can be thereby relaxed as shown in View (c) of Fig. 8.*)**. (Shimizu**; **¶0039-¶0040)**

Regarding to claim 11: With respect to the method claim 11, as discussed above; since the receiving apparatus disclosed by Shimizu and Hannuksela anticipate every structural element and its function required by the apparatus claim 1 and since this method claim 11 merely repeats the functions of claim 1, claim 11 must also be anticipated by Shimizu and Hannuksela (**please see discussion of claim 1) and** display a video image based on the video data, and stop the output of the video data at the position instructed in the interruption point data, merely repeats the functions of claim 6, also is rejected by combination of Shimizu and Hannuksela (see claim 6 discussion; (**Shimizu**; **¶0032, ¶0034-¶0036 and ¶0041-¶0042**)

Regarding to claim 12: With respect to the method claim 12, the scope of claim is substantially the same or slightly broader than that of the claim 1 since it requires every structural element of claim 1as discussed above since the receiving apparatus disclosed by combination of Shimizu and Hannuksela anticipate every structural element and its function required by the apparatus claim 1 and since this method claim 12 merely repeats the functions of claim 1, claim 12 must also be anticipated by combination of Shimizu and Hannuksela (**please see discussion of claim 1)**

3. Claim **9 is** rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. and Hannuksela et al.; in view of Furuya et al (US Patent No. 6,452,943, hereinafter Furuya)

Regarding to claim 9: Shimizu and Hannuksela teach all limitations of the receiving apparatus according to claim 1, Shimizu and Hannuksela are silent with respect to claim "**wherein the detection means further detects two kinds of levels**

of the interruption point data out of the data on a stream broadcast, and the control means also selects the two kinds of levels of the interruption point data according to a type of a communication rate of the connected network".

In an analogous art directed toward a similar problem namely improving the results from *two kinds of levels of the interruption point data out of the data on a stream broadcast according to a type of a communication rate of the connected network*.

Furuya teaches **according to a type of a communication rate of the connected network** *(i.e. reproduce the video data at the constant rate with a 500msec cycle between transmitter [100] and receiver [200] of Fig. 11)* **(Furuya, Fig. 11, col. 14 lines 49-53); the detection means** *(i.e. unit [208] in receiver [200] of Fig. 11)* **further detects two kinds of levels (***as an underflow and an overflow***) of the interruption point data out of the data on a stream broadcast and the control means also selects the two kinds of levels of the interruption point data** (*while the reproduction processing is being performed, the amount of expendable data in the reception buffer (i.e. the amount of video data indicated by the difference between read pointer and the write pointer) reaches one cycle (2 MB) of video data with a 520msec cycle, it is judged that* ***an underflow*** *may occur. Conversely, if the amount of expendable data (6MB) in the reception buffer reaches three cycles where each (2 MB) of video data with a 480msec cycle, it is judged that* ***an overflow*** *may occur*). **(Furuya, Fig. 15, col. 14 line 44 to col. 15 line 12; col. 16 line 62 to col. 17 line 6** and **col. 21 lines 11-13 and col. 22 lines 52-54**).Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention was made to modify **the interruption point data** in a

receiving apparatus of Shimizu and Hannuksela with two kinds of levels of the interruption point data as taught by Furuya in order to provide the process to ensure underflows and overflows do not occur in the reception buffer of receiver places an excessive load on the entire system.

Response to Arguments

4. Applicant's arguments, see Remarks filed on 04/16/2009, with respect to the rejection(s) of claim(s) 1, 3-12 under Chiba; in view of Furuya et al , further in view of Takashi et al.; and further in view of Hannuksela et al. have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Shimizu and Hannuksela et al.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALAN LUONG whose telephone number is (571)270-5091. The examiner can normally be reached on Mon.-Thurs., 8:00am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. L./
Examiner, Art Unit 2427

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2427